

CLAIMS

1. A planar structural element (1) made from metal,  
particularly for filtration, **characterised in that** a  
5 metal fibre thread (5 to 12) is worked in between  
metal wire (2 to 4).
2. The planar structural element according to claim 1,  
**characterised in that** the metal fibre thread (5 to 12)  
10 has a larger diameter than the metal wire (3 to 4).
3. The planar structural element according to any of the  
preceding claims, **characterised in that** the metal wire  
(2 to 4) is woven together with the metal fibre thread  
15 (5 to 12).
4. The planar structural element according to claim 3,  
**characterised in that** the metal wire (2 to 4)  
constitutes the warp, and the metal fibre thread (5 to  
20 12) the weft of a cloth.
5. The planar structural element according to any of the  
preceding claims, **characterised in that** the metal wire  
(2 to 4) is a monofilament wire.  
25
6. The planar structural element according to any of the  
preceding claims, **characterised in that** the metal wire  
(2 to 4) forms a smooth surface (13, 14).
- 30 7. The planar structural element according to any of the  
preceding claims, **characterised in that** the planar  
structural element (1) is furnished with a support  
layer (15) consisting of metal wire (16 to 19),  
preferably monofilament wire.  
35
8. The planar structural element according to any of the  
preceding claims, **characterised in that** metal wire

1042134

- 2 -

(22), preferably monofilament wire holds planar structural element (1) together.

- 5 9. The planar structural element according to any of the preceding claims, **characterised in that** a section through the metal fibre thread (5 to 12) comprises more than 100, preferably more than 500 individual capillaries.
- 10 10. The planar structural element according to any of the preceding claims, **characterised in that** an individual capillary has a diameter less than 100  $\mu\text{m}$ , preferably less than 30  $\mu\text{m}$ .
- 15 11. A method for manufacturing a planar structural element, particularly according to any of claims 1 to 10, **characterised in that** a metal fibre thread (5 to 12) encased in a skin is woven together with a metal wire (2 to 4) to form a cloth, and the skin is then removed.
- 20 12. The method according to claim 11, **characterised in that** the skin is removed using a liquid.
- 25 13. The method according to either of claims 11 or 12, **characterised in that** the cloth is welded to a solid body.
- 30 14. The method according to any of claims 11 to 13, **characterised in that** stainless steel is used for the metal fibre thread (5 to 12) and for the metal wire (2 to 4).
- 35 15. Use of a planar structural element in accordance with any of claims 1 to 10 for depth filtration.